


☐



*Complete if Known*

<b>Application Number</b>	09 931,268
<b>Filing Date</b>	August 16, 2001
<b>First Named Inventor</b>	Linlin Chen et al.
<b>Group Art Unit</b>	1743
<b>Examiner Name</b>	Unknown

(use as many sheets as necessary)

Sheet	1	of	3
-------	---	----	---

Attorney Docket Number	1921.0014C
------------------------	------------

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code <sup>2</sup> (if known)		
Gn		3,878,066		Detke et al.	04-15-1975
Gn		3,904,493		Losi et al.	09-09-1975
Gn		4,055,751		Bussman et al.	10-25-1977
Gn		4,090,926		Matson	05-23-1978
Gn		4,132,605		Tench et al.	01-02-1979
Gn		4,146,437		O'Keefe	03-27-1979
Gn		4,917,774		Fisher	04-17-1990
Gn		4,948,473		Phillippi	08-14-1990
Gn		5,192,403		Chang et al.	03-09-1993
Gn		5,196,096		Chang et al.	03-23-1993
Gn		5,223,118		Sonnenberg et al.	06-29-1993
Gn		5,234,573		Takami	08-10-1993
Gn		5,364,510		Carpio	11-15-1994
Gn		5,389,215		Horiuchi et al.	02-14-1995
Gn		5,391,271		Ludwig	02-21-1995
Gn		5,484,626		Storjohann et al.	01-16-1996
Gn		5,534,128		Aso et al.	07-09-1996
Gn		6,365,033	B1	Graham et al.	04-02-2002
Gn		5,484,626		Storjohann et al.	

## FOREIGN PATENT DOCUMENTS

[illegible]

Examiner Signature	<i>Ally Macerola</i>	Date Considered	3/30/04
-----------------------	----------------------	--------------------	---------

\*EXAMINER. Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>†</sup> Unique citation designation number.

\* See attached Kinds of U.S. Patent Documents.


<sup>2</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

<sup>1</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

Applicant is to place a check mark here if English language Translation is attached

11



RECEIVED  
JUL 23 2004  
GROUP 1790

*Complete if Known*

<b>Application Number</b>	09 931,268
<b>Filing Date</b>	August 16, 2001
<b>First Named Inventor</b>	L.W. Graham, et al.
<b>Group Art Unit</b>	1743
<b>Examiner Name</b>	Unknown
<b>Attorney Docket Number</b>	1921.0014C

Sheet	2	of	3
-------	---	----	---

Attorney Docket Number	1921.0014C
------------------------	------------

1700

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code (if known)		
an		5,007,990		Bladon	04-16-1991
an		4,952,286		Bladon et al.	08-28-1990
an		4,917,777		Fisher	04-17-1990
an		4,895,739		Bladon	01-23-1990
an		4,541,902		Kinoshita et al.	09-17-1985
an		4,324,589		Gulla et al.	04-13-1982
an		4,229,218		Gulla et al.	10-21-1980
an		4,834,842		Langner et al.	05-30-1989
an		6,471,845	B1	Dukovic et al.	10-29-2002
an		5,368,715		Hurley et al.	11-29-1994
an		6,113,769		Uzoh et al.	09-05-2000
an		6,254,760	B1	Shen et al.	07-03-2001
an		6,280,602	B1	Robertson	08-28-2001
an		3,649,509		Morawetz et al.	07-08-1969
an		4,326,940		Eckles et al.	04-27-1982
an		4,886,590		Tittle	12-12-1989
an		6,551,479	B1	Graham et al.	04-22-2003

[illegible]

Examiner Signature	<i>Al Nazer</i>	Date Considered	3/30/04
-----------------------	-----------------	--------------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

<sup>5</sup> See attached Kinds of U.S. Patent Documents.

<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3)

<sup>1</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

<sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible.

\* Applicant is to place a check mark here if English language Translation is attached.

Please type a plus sign (+) inside the box → ☐

PTO SB 08A (08-00)

Substitute for form 1449B PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number	09 931,268	
			Filing Date	August 16, 2001	
			First Named Inventor	Linlin Chen et al.	
			Group Art Unit	1743	
Examiner Name	Unknown				
Sheet	3	of	3	Attorney Docket Number	1921.0014C

OTHER DOCUMENTS - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and or country where published.	F <sup>2</sup>
an		Z. SUN ET AL., <i>Optimized Bath Control for Void-Free Copper Deposition</i> , Solid State Technology, pp. 1-10, November 2001.	
an		DENNIS TENCH and JOHN WHITE, <i>Cyclic Pulse Voltammetric Stripping Analysis of Acid Copper Plating Baths</i> , Journal of the Electrochemical Society, Vol. 132, No. 4, pp. 831-834, April 1985.	
an		HOBART H. WILLARD, et al., <i>Instrumental Methods of Analysis</i> , Fifth Edition, D. Van Nostrand Company, New York, N.Y., pp. 647-656, 1974.	
an		FREDERICK A. LOWENHEIM, <i>Electroplating</i> , McGraw-Hill Book Company, pp. 120 & 121, 1979.	

Examiner Signature	<i>Ab. Negerah</i>	Date Considered	3/30/04
--------------------	--------------------	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

<sup>1</sup> Unique citation designation number.

<sup>2</sup> Applicant is to place a check mark here if English language Translation attached.



INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

Form PTO-1449 (Modified)  
(Use several sheets if necessary)

COMPLETE IF KNOWN

Application Number	09/931,268
Confirmation Number	2230
Filing Date	August 16, 2001
First Named Inventor	Linlin Chen
Group Art Unit	1753
Examiner Name	Ta Hsung Tung
Attorney Docket No.	29195-8183US

Sheet 1 of 2

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.	U.S. Patent or Application		Name of Patentee or Inventor of Cited Document	Date of Publication or Filing Date of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		NUMBER	Kind Code (if known)			
		3,878,066		Dettke et al.	04/1975	
		3,904,493		Losi et al.	09/1975	
		4,055,751		Bussman et al.	10/25/77	
		4,090,926		Matson	05/23/78	
		4,132,605		Tench et al.	01/02/79	
		4,146,437		O'Keefe	03/27/79	
		4,917,774		Fisher	04/17/90	
		4,917,777		Fisher	04/17/90	
		4,948,473		Philippi	08/14/90	
		5,192,403		Chang et al.	03/09/93	
		5,196,096		Chang et al.	03/23/93	
		5,223,118		Sonneberg et al.	06/29/93	
		5,234,573		Takami	08/10/93	
		5,364,510		Carpio	11/15/94	
		5,389,215		Horiuchi et al.	02/14/95	
		5,391,271		Ludwig	02/21/95	
		5,534,128		Aso et al.	07/09/96	

RECEIVED  
JUN 24 2003  
GROUP 1700  
These references were  
already  
considered  
in the  
IDS  
of  
June 25, 2003  
An

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.	Foreign Patent or Application			Name of Patentee or Applicant of Cited Document	Date of Publication or Filing Date of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Office	NUMBER	Kind Code (if known)				
		WO	99/09659-5		Semitool, Inc.	11/11/99		
			99/57579 A1					

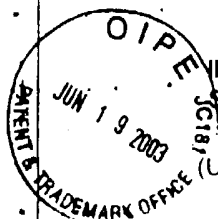
EXAMINER

Alta Noguera

DATE CONSIDERED

8/09/04

\*EXAMINER: Initial of reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).



INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

Form PTO-1449 (Modified)  
(Use several sheets if necessary)

COMPLETE IF KNOWN

Application Number	09/931,268
Confirmation Number	2230
Filing Date	August 16, 2001
First Named Inventor	Linlin Chen
Group Art Unit	1753
Examiner Name	Ta Hsung Tung
Attorney Docket No.	29195-8183US

Sheet	2	of	2
-------	---	----	---

OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume issue number(s), publisher, city and/or country where published.	T
		<del>WILLARD et al., "Instrumental Methods of Analysis," (1974), pp 647 to 656</del>	
		<del>LOWENHEIM, F.A., "Electroplating," McGraw-Hill Book Co., New York, 1978, pp 120-121</del>	

These two references  
were already considered  
in the IDS  
of  
June 25, 2003.  
A<sup>n</sup>

RECEIVED  
JUN 24 2003  
GROUP 1700

EXAMINER <i>Ab. Nagarala</i>	DATE CONSIDERED <i>3/30/04</i>
*EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).	